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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,617	07/20/2001	Yuichiro Ikemoto	09792909-5094	2179

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EXAMINER

NGUYEN, THINH H

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,617

Applicant(s)

IKEMOTO ET AL.

Examiner

Thinh H Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,11-14,18,19 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11,12 and 24-27 is/are allowed.
- 6) ☒ Claim(s) 1,3-7,13-14,18,19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Shimizu et al. (EP 0968832)

Shimizu (figs.3, 12A, 12B) discloses every element of the instant claimed ink jet printer, having a print head 23 comprises a plurality of head units 231, 232 and 233 that partly overlap at least one direction to form an overlapped area Q on a print object wherein each adjacent pair of the overlapping nozzles form one dot at shade levels complementarily to reduce irregularities in density.

Re claims 3 and 4, the ink ejecting mechanism 2 is driven in a boundary P is set in the overlapped zone Q, a spot in the overlapped area is allocated to the head chip cover either side of the overlapped area, and the boundary is shifted. (see fig.3; paragraphs 0025-0034)

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6-7, 13-14, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. in view of Allen et al. (U.S. 5,469,199)

Shimizu discloses the instant claimed subject matter except for showing the nozzle plate which is inherently associated with most printheads.

Allen et al. (col.4, lines 38-49) discloses the instant claimed nozzle plate 18 which may either contains a single head unit (group of nozzles) 20 or a number of head units or the nozzle plate can be extended almost as wide as the print object anywhere between approximately one-sixth inch and twelve inches.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the nozzle plate in Shimizu's printhead as such plate is inherently associated with most printheads. Further, the purpose of using the extended nozzle plate taught by Allen in Shimizu is to achieve precise alignment of the orifices which are arranged in the stacked manner as shown in figure 3.

Allowable Subject Matter

3. Claims 11-12, 24-25, 26-27 are allowed.

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4. The teaching relied upon by the Examiner suggest the printhead having multiple nozzle arrays. However, each nozzle array does not associate with different ink color as claimed.

Response to Amendment

3. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on July 2, 2002, and December 16, 2002 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

In response to the Applicant arguments that Allen's nozzles are not positioned side by side in a linear array (col.3, 5-14), the Examiner disagreed.

Allen (col.3, lines 6-13) discussed linear arrays in overlapping pattern where precise alignment can be achieved as opposed to the prior art nozzles arranged side by side in a linear array which suffers alignment difficulty.

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Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thinh Nguyen whose telephone number is (703) 308-7487.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Thinh Nguyen

April 4, 2003

**Thinh Nguyen
Primary Examiner
Technology Center 2800**